THE CARL MOYER PROGRAM ADVISORY BOARD REPORT

The Carl Moyer Memorial Air Quality Standards Attainment Program; Incentives for Lower Emission Heavy Duty Engines

March 24, 2000

Carl Moyer Program Advisory Board Members		
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RECOMMENDATIONS OF THE CARL MOYER PROGRAM ADVISORY BOARD

The Carl Moyer Program Advisory Board has evaluated the Carl Moyer Program[1], and unanimously recommend the following:

1. The Program is invaluable to air quality officials and should be continued at a funding level of $100 million per year through the year 2010.
2. The Program offers the only realistic way to achieve emission reductions from sources that would otherwise not be required under federal or state laws to reduce their emissions.
3. The Program has achieved substantial emission reductions and it is one of the State's most cost-effective air pollution programs.
4. Without the Program, air districts in California face a higher probability of failing to achieve the National Ambient Air Quality Standards, which could have severe consequences and place federal funding at risk.
5. The Program should be expanded to encourage statewide reductions of harmful particulate emissions and allow air quality officials in areas designated as serious non-attainment for particulate matter (PM) to use Program money to achieve Particulate Matter emission reductions.
6. The Advanced Technology Development and the Infrastructure Development portions of the Program, both implemented by the California Energy Commission (CEC), should continue for the life of the Program.

[1] The Carl Moyer Program is administered by the Air Resources Board and the California Energy Commission, and implemented by local air quality management and air pollution control districts.

EXECUTIVE SUMMARY

The California Air Resources Board (ARB) and the United States Environmental Protection Agency have worked successfully to dramatically reduce smog-forming emissions from new vehicles and equipment traditionally powered by heavy-duty diesel engines. However, because these engines can last for 15 or more years, air quality officials are finding it difficult to achieve substantial reductions from the existing fleet of engines. As the deadlines for achieving attainment of the National Ambient Air Quality Standards become closer and closer, it is vital to achieve further reductions from heavy-duty diesel engines. This is where the Carl Moyer Program[2] has been an overwhelming success. It not only significantly reduces smog-forming and cancer-causing emissions from vehicles and equipment traditionally powered by heavy-duty diesel engines, but it also fosters development of new technologies and it supports the necessary infrastructure for these technologies. The program reduces air pollution through grants that provide an incentive for owners of trucks, buses, boats, agricultural pumps, forklifts, and other mobile sources to invest in technologies that are cleaner than what they are currently operating. Rather than rebuild a 1990 diesel bus, for example, with the same 1990 diesel technology, owners now have an incentive to retrofit that bus with a cleaner technology engine or fuel.

During its first year, the Carl Moyer Program reduced emissions of oxides of nitrogen (NOx) by about four tons per day at an average cost effectiveness of approximately $3,000 per ton. In addition, particulate matter (PM) emissions were reduced by about 100 pounds per day. These near-term emission benefits of the Carl Moyer Program are significant, very cost-effective, and are vitally needed for California to meet state and federal clean air deadlines. Failure to meet federal deadlines means California residents breathe higher levels of pollution, and California could face sanctions, including loss of federal highway funds and higher barriers to industrial growth.

The emission benefits achieved through the Carl Moyer Program are especially critical in the Sacramento, San Joaquin, and South Coast areas. Sacramento and the San Joaquin Valley need the near-term reductions to meet 2005 federal clean air attainment deadlines. Sacramento also needs near term reductions to help resolve a transportation conformity lawsuit which could stop certain road projects. Although the South Coast area has a 2010 federal deadline, the extreme air pollution problem there demands near-term reductions from incentive programs to accelerate the public health benefits of new technology. Continued funding at current levels -- $19 million per year – would provide less than 30 percent of the needed reductions in the Sacramento region, for example. If California is going to meet its federally mandated emission levels, continued funding at a substantially higher level is needed. The Advisory Board recommends that the program be funded at $100 million per year through 2010.

Every air district official the Board spoke with indicated that it could cost-effectively allocate more funding if it were available. The program, even in its infancy, has been

[2] The Carl Moyer Program is administered by the Air Resources Board and the California Energy Commission, and implemented by local air quality management and air pollution control districts.

tremendously well-received. Numerous private businesses and public agencies have applied for grants to help air quality by operating lower-emission vehicles and equipment. At this early stage, the demand for project funding has been five times the funding available for the South Coast and three times the funding available statewide.

Continued funding and a commitment for a multi-year program is important for program continuity and predictability to the local air districts, the manufacturers of "clean" engines/equipment, and the actual users of the funds. Continued funding will provide local districts with a predictable source of emission benefits for their respective clean air plans, will encourage engine/equipment manufacturers to accelerate the introduction of emission control technology, and will provide opportunities for greater fleet participation.

The Advisory Board unanimously recommends that ARB staff incorporate specific modifications into the Carl Moyer Program Guidelines. The Advisory Board recommends that the program target a 25 percent reduction statewide in PM emissions, and require a 25 percent PM reduction district-wide for serious PM nonattainment areas. The PM reduction criteria and technology-related recommendations are discussed in greater detail later in this report.

Two important components of the Carl Moyer Program are the Advanced Technology Development and the Infrastructure Demonstration portions -- both implemented by the CEC. These program components are vital for fostering development of advanced new engine, retrofit, and aftertreatment technologies, and for providing funds for the fueling infrastructure necessary to support alternative-fuel projects already funded through the vehicle/engine portion of the Carl Moyer Program. The Advanced Technology Development and the Infrastructure Demonstration components are included in the Advisory Board's recommendation for continued funding for the Carl Moyer Program as a whole.

The Advisory Board recommends that the Carl Moyer Program be funded through 2010 at $100 million per year. The Advisory Board examined possible funding sources for the Carl Moyer program and determined that the funding should be a combination of one-time and on-going funding sources. For one-time funding, the Advisory Board recommends that a total of $400 million be allocated for use over the next five years (timing consistent with the 2005 attainment deadlines in Sacramento and San Joaquin). An appropriate source of this one-time funding is the state's General Fund budget surplus.

On-going funding should come from a variety of sources. As part of a long-term multi-year program, the Advisory Board recommends that a portion of the funds continue to be derived from the General Fund from 2006 through 2010. The Advisory Board also recommends that legislative authority be granted to increase the motor vehicle registration fee monies (i.e., AB2766 and other funds), and that the incremental increase be used to help fund the Carl Moyer Program. The "windfall" of funds from the increase in sales tax revenue to the state associated with rising gasoline and diesel fuel prices could provide periodic funding. Other sources of on-going funding are identified

later in this report. On-going funding from 2006 through 2010 would provide for cost-effective emission reductions to assist the South Coast region in meeting its 2010 federal clean air deadline, would help areas throughout the state to meet California's health protective air quality standards, and would reduce public exposure to cancer-causing pollution. Long-term funding is critical to maintaining program momentum, ensuring the availability of infrastructure to support alternative-fuel projects, and fostering further improvements in advanced technology that will significantly reduce harmful emissions in the years to come.

Air pollution has serious impacts on public health and the economy. Ground-level ozone (smog) is created by the photochemical reaction of NOx and hydrocarbons. It causes harmful health effects ranging from eye irritation, sore throats and coughing, to lung damage, cancer, and premature death. People with compromised respiratory systems and children are the most severely affected. Communities of color and low income are disproportionately impacted by air pollution, and may not be adequately represented in the clean air decision making process.

Particulate matter, like ozone, has also been linked to a range of serious health problems. Particles are deposited deep in the lungs and can result in increased respiratory disease, lung damage, cancer, and premature death. Every year, the cost of health-related problems, plus damage to crops and vegetation, cost Californians billions of dollars. The cost of air quality improvement programs have been shown to be significantly less than the societal cost from air pollution. The Carl Moyer Program has proven itself to be a very cost-effective way to achieve the significant near term reductions California needs, and the Advisory Board unanimously recommends it be continued.

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I. Advisory Board Findings

The Carl Moyer Program Advisory Board, created by Assembly Bill 1571, has evaluated the program and considered the need for continued funding. The Advisory Board heard public testimony, reviewed ARB's status report on the program, and asked questions of air districts, ARB, and CEC staff regarding program implementation. The Advisory Board's findings based on that evaluation are shown below.

A. Program Status

- The Carl Moyer Program is a vital and effective program that will significantly benefit air quality and public health, and should be continued.

- NOx emission reductions from the first year of the program are estimated at about four tons per day. The program has also reduced PM by more than 100 pounds per day.

- The program has been well-received. Although the program covers only the incremental capital cost of vehicles and equipment that are cleaner than required, numerous private businesses and public agencies have applied for project grants.

- The Carl Moyer Program provides cost-effective benefits. Program cost-effectiveness for the first year of funding is about $3,000 per ton of NOx reduced. This is less than half the cost of typical stationary source emission reduction control strategies.

B. Need for the Program

- Local air districts need the NOx emission reductions the program provides to meet state and federal clean air deadlines. The NOx benefits are particularly critical in the Sacramento, San Joaquin, and South Coast areas. Failure to meet these requirements can result in significant economic consequences.

- California residents need the public health benefits the Carl Moyer Program can provide by reducing exposure to particulate matter.

- The Carl Moyer Program is a cost-effective and feasible means of achieving near-term NOx and PM emission reductions.

- A commitment for a multi-year program is important for continuity and predictability to the local districts, users, and manufacturers of the equipment. Continued funding will provide local districts with a predictable source of emissions benefits for their clean air plans. It will also provide opportunities for greater fleet participation and

encourage manufacturers to accelerate the introduction of emission control technology.

C. Technology and Fueling Infrastructure

- The Advanced Technology Development portion of the program fosters the development of advanced new engine, retrofit, and aftertreatment technologies, and can encourage the introduction of even more cost-effective technologies. Advanced Technology Development is an important part of the program, and should be continued.

- Alternative fuel infrastructure is necessary to support Carl Moyer Program alternative-fuel vehicles and equipment, and should continue to be funded under the program.

- ARB, CEC and district staff should continue to assess the viability of emerging engine and aftertreatment technology.

- Repowering of older trucks with new engines meeting October 2002 emission requirements should be included in the program. ARB staff should quantify the associated emissions benefits.

- ARB staff should consider diesel-water emulsions for inclusion in the program. Staff should evaluate test data submitted by proponents of diesel-water emulsions in support of emissions benefits, performance, and durability claims.

D. Particulate Matter

- Particulate matter is a serious public health concern, and can result in increased respiratory disease, lung damage, and premature death. Some areas in the state exceed federal PM_{10} ambient air quality standards. Particulate matter from diesel-fueled engines has been identified by the ARB as a toxic air contaminant.

- Technology and fuels to reduce PM in addition to NOx are available now, and include alternative fuels, improved combustion efficiency, and aftertreatment.

- ARB staff should update the Carl Moyer Program Guidelines to include PM emissions baselines, and thus provide districts the tools to quantify the PM benefits of Carl Moyer projects.

- Although the program was originally designed as an ozone attainment strategy, there are significant public health benefits to reducing PM in addition to NOx.

- The Advisory Board recommends a statewide target of 25 percent reduction in PM emissions from projects funded through the Carl Moyer Program. The 25 percent reduction target is a program-wide target, rather than a project-by-project target.

- For serious PM nonattainment areas, the Advisory Board recommends a requirement of 25 percent reduction in PM emissions from projects funded through the Carl Moyer Program. The 25 percent reduction requirement applies to the district program as a whole, rather than a project-by-project basis. Currently, the South Coast Air Quality Management District and the San Joaquin Valley Air Pollution Control District are serious PM nonattainment areas.

E. Amount and Source of Funding

- The Carl Moyer Program provides real, quantifiable, cost-effective emission reductions. Funding for the program should be continued at a substantially increased level.

- In the South Coast, the demand for project funding is five times the available funding. Statewide, demand is three times the available funding.

- Per an analysis done by the late Dr. Carl Moyer, based on available engines and types of projects, up to $150 million per year could be cost-effectively utilized by the Carl Moyer Program.

- Based on the demonstrated demand, the need for NOx emission reductions to obtain national ambient air quality standards, the need for PM emission reductions to improve public health, $100 million per year is needed to adequately fund the Carl Moyer Program. At this level, the emissions benefit would be 60 to 80 tons per day of NOx, and more than 500 pounds per day of PM.

- The Advisory Board recommends as a source of funding, a one-time appropriation of $400 million from the General Fund surplus, to be made available for use over the next five years. This would provide $80 million per year for the next five years. That is roughly equal to the demand for funding in the first year of the program. Demand is expected to increase as the program continues. Funding from sources other than the General Fund should provide an additional $20 million per year. A number of potential sources of funding are discussed later in this report. The General Fund would also be an appropriate part of the overall funding after the first five years.

III. Need for Continued Funding

The Carl Moyer Program is providing immediate and cost-effective emission reductions in smog forming and cancer causing pollutants. In assessing whether it is appropriate to provide continued funding for the Carl Moyer Program, two questions must be answered. The first deals with the demand. Are there sufficient cost-effective projects to utilize the funds? The second question deals with the need. Is an incentive program needed to achieve our clean air requirements? The second question must also consider the consequences of failing to meet California's clean air goals

A. Demand for Funding

Based on project applications received by the districts, the demand for Carl Moyer Program funding far exceeds the available funds. The South Coast Air District received requests for over $50 million in funding, or about five times their 1998-99 allocation. Statewide, the demand for funding was more than three times the available funds. If the program is continued, awareness of the program and the types of technology available for qualifying projects would likely increase the demand for funding.

The late Dr. Carl Moyer performed an analysis of the overall funds that would be required based on the total number of engines in services and the types of qualifying projects that could be done. Based on his analysis, Dr. Moyer testified at a special interim legislative hearing that about $150 million per year for several years could be used on qualifying projects. He estimated that about $100 million should be allocated to the South Coast through 2010. Dr. Moyer's analysis was based on the need to reduce NOx emissions only and did not include additional funding for particulate matter reductions.

B. Need for Statewide NOx Emission Reductions

In 1994, ARB worked with industry, environmentalists, government agencies, and experts in the air quality field to put together a long-term plan for bringing clean air to all Californians. That long-term plan is known as California's SIP. Although the majority of the measures in the SIP call for more stringent emission standards, the SIP also calls for emission reductions from market-based measures. SIP measure M4, for example, calls for incentives for the early (pre-2004) introduction of lower-emission heavy-duty trucks and buses. The SIP also calls for incentives as part of the strategy to meet the emission reduction commitments in the South Coast through 2010.

Areas such as the Sacramento Region, the San Joaquin Valley and Ventura County, which are or will be classified as severe and must achieve attainment of the federal ozone standard by 2005, are counting on the near-term emission reductions provided by the Carl Moyer Program to demonstrate attainment. The South Coast Air Basin, which is classified as extreme and must attain the ozone standard by the year 2010, is also counting on the near-term reductions to meet their progress commitments. Funding from 2006 through 2010 is also critical to help South Coast meet their ozone

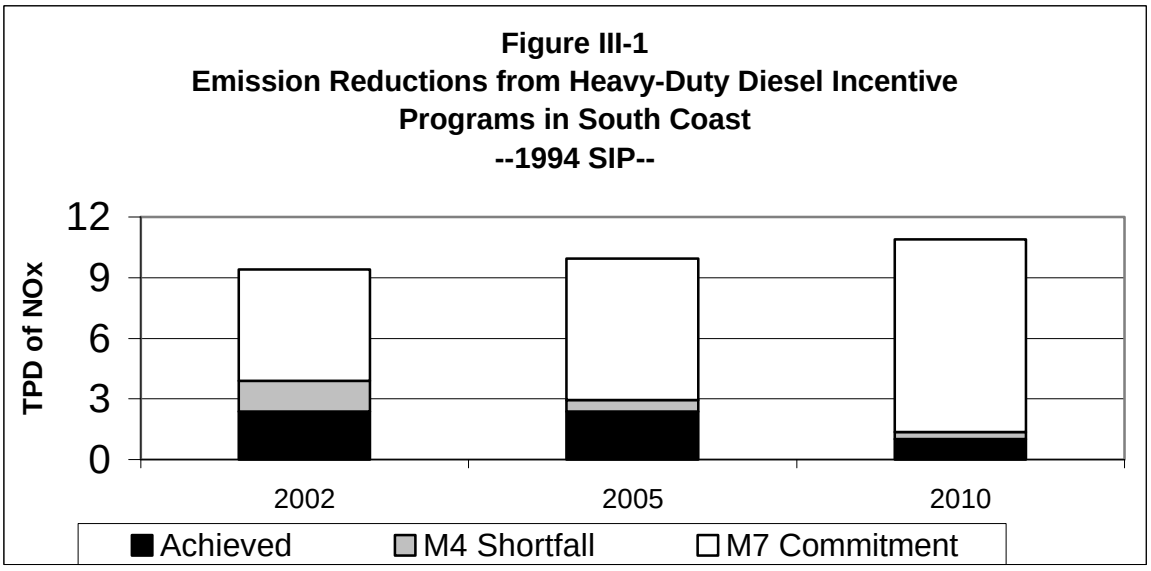
attainment deadline, to help areas throughout the state to meet California's health protective air quality standards, and to reduce public exposure to particulate matter.

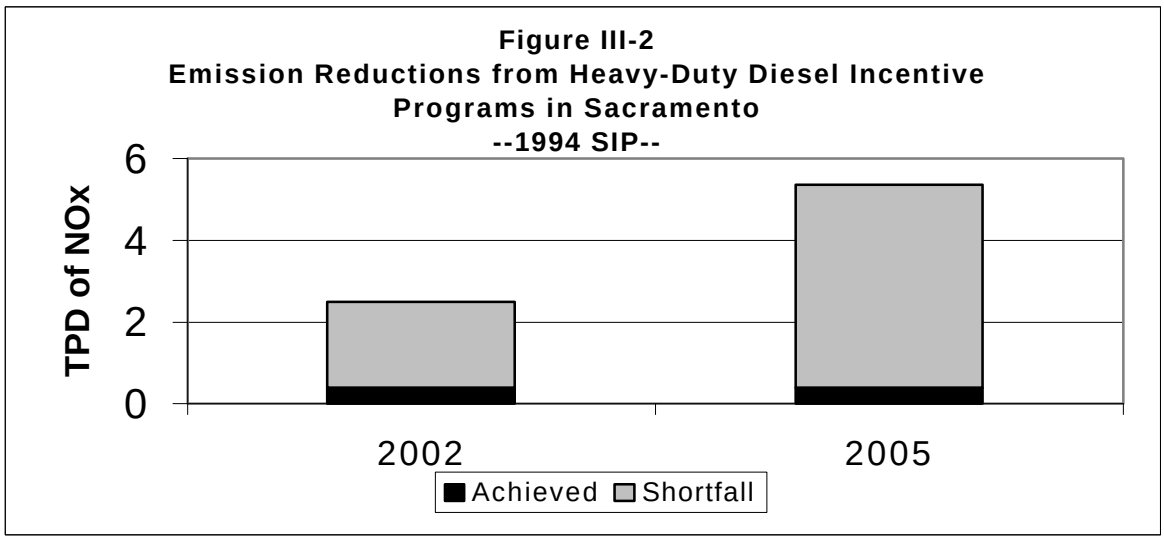
C. NOx Commitments in the South Coast, San Joaquin, and Sacramento

Carl Moyer program funds provide a significant contribution toward meeting California's heavy-duty diesel incentive commitments. Figure III-1 show that, in the South Coast, existing Moyer funds have achieved over half of the M4 commitment through 2010, the attainment year . However, emission reductions to fulfill the M7 commitments have not yet been achieved. In 1998, the ARB found M7 infeasible and revised the SIP to replace the measure with M17 – a commitment to obtain additional emission reductions from heavy-duty diesel vehicles by pursuing a combination of expanded in-use compliance and additional market-based incentives for cleaner engines. U.S. EPA has not yet approved M17. Measure M4 and Measure M17 together total a commitment of over 8 tons per day by 2010. The South Coast would require about twice the current level of funding to generate those emission reductions.

The San Joaquin Valley and other inland areas have seen less improvement in air quality than coastal regions such as Los Angeles. The San Joaquin Valley was scheduled to attain the federal one-hour ozone standard in 1999, and failed to do so. Measured ozone levels in the Valley are still well above the standard. U.S. EPA is preparing to "bump up" the San Joaquin Valley to a severe classification with an attainment date of 2005, requiring the Valley to develop a new SIP, and adopt and implement new control measures. Heavy-duty diesel vehicles and equipment are the largest source of NOx emissions in the Valley. Based on the existing SIP, we expect the Valley will need to reduce current NOx emissions from these diesel engines by 20 percent or more to attain the standard. Tighter emissions standards for new engines will only provide a portion of the needed emission reductions by 2005. We will need additional incentives to secure adequate near-term emission reductions.

For areas like Sacramento with a 2005 attainment date, incentive programs are particularly important. New on-road and off-road engines meeting new, cleaner required standards will bring significant improvement -- over time. But heavy-duty diesel engines turnover is fairly slow. More must be done to address emissions from the current fleet, and generate near-term emission reductions. To demonstrate attainment of the federal standard in 2005, the Sacramento district committed to achieve 5 TPD (in 2005) from a local incentive program, in addition to ARB's M4 commitment. Sacramento would need about six times its current funding to meet the 9 TPD (in 2005) incentive program commitments and attain the standard (Figure III-2).





D. Issues Regarding Conformity

The Carl Moyer Program is needed not only as an ozone attainment strategy, but also to provide near-term mobile source reductions to meet conformity with local air quality plans. Local transportation agencies rely on effective state motor vehicle control programs to make the federally-required findings that emissions from new transportation

projects and plans “conform” to emission budgets set forth in air quality plans. If these findings cannot be made, federal transportation funds for new projects stop.

Conformity determinations must be completed by midsummer 2000 to avoid transportation project delays this fall for Sacramento, San Joaquin Valley, and South Coast Air Basin. Failing to provide effectiveness estimates and a schedule for remedying mobile source emission shortfalls could result in a loss of billions of dollars in federal transportation funds earmarked for transportation projects in these areas.

E. Summary

The demand for Carl Moyer funds far exceeds the current level of funding. Several areas in California are facing near term deadlines to attain the federal ambient ozone air quality standards and are depending on the emission reductions gained by the Carl Moyer Program to help them reach attainment. While the ARB has adopted stringent emission standards for on- and off-road heavy-duty engines, these standards affect only new engines. Consequently, the emission benefits are not fully realized until the fleet is replaced well after 2005. In addition, incentive funds can obtain emission reductions from specific equipment or fleets that could not practically be regulated. Increased funding is essential to deliver the near-term emission reductions needed for attainment in 2005, and provide longer-term health and air quality benefits through 2010.

IV. Particulate Matter Emission Reductions

The purpose of the Carl Moyer Program is to reduce emissions and help California meet its air quality obligations under the State Implementation Plan for Ozone (SIP). The program is intended primarily to reduce emissions from vehicles and equipment that have traditionally been powered by heavy-duty diesel engines, which have both high NOx and high PM emissions. Because the Carl Moyer Program's main purpose is to reduce ozone precursor emissions to meet California's SIP requirements, it has historically focused on achieving NOx reductions. However, no program that aims to "cleanup" heavy-duty vehicles can ignore PM emissions. Therefore, the question arises of whether Carl Moyer Program grants can be effectively used to also achieve significant PM reductions.

A. Public Health Issues

Particulate matter is a serious public health concern. In California, South Coast and San Joaquin Valley violate the federal and state PM emission standards, and are designated as serious non-attainment areas. Particulate matter, like ozone, has been linked to a range of serious health problems. Fine diesel particles are deposited deep in the lungs and can result in increased hospital admissions and emergency room visits; increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death. On August 27, 1998, after extensive scientific review and public hearing, the ARB formally identified particulate emissions from diesel-fueled engines as a toxic air contaminant. Reducing particulate matter emissions would greatly benefit public health.

B. Particulate Matter Reductions from the Carl Moyer Program

Some of the technologies funded through the Carl Moyer Program, such as electric motors or other projects using alternative-fuel engines, reduce PM emissions. Some diesel to diesel repowers also reduce PM, because less efficient diesel engines are replaced with new, more efficient diesel engines that emit less NOx *and* PM. Even without specific requirements to reduce PM, the Carl Moyer Program has achieved approximately 100 pounds per day of PM reductions. These have been considered "free" PM benefits since the projects funded are justifiable and cost-effective based entirely on their NOx reductions.

C. Recommendation

The Advisory Board recognizes that diesel PM is a serious public health concern and PM reductions are necessary throughout the state. However, the Carl Moyer Program was developed and funded to achieve NOx reductions so that districts can meet imminent federal air quality standards. These federal requirements carry with them

significant sanctions for non-compliance. The first steps in balancing these two concerns are to ensure that districts are aware of the serious health risks associated with PM emissions, that information on the PM reductions of funded projects is being gathered and reported, and that no-cost and low-cost PM reductions are being achieved wherever possible.

The Advisory Board strongly recommends that an annual target be set for 25 percent PM reductions from the statewide Carl Moyer Program. The 25 percent reduction target is a program-wide target, rather than a project-by-project target.

For serious PM nonattainment areas, the Advisory Board recommends a requirement of 25 percent reduction in PM emissions from projects funded through the Carl Moyer Program. The 25 percent reduction requirement applies to the district program as a whole, rather than a project-by-project basis. Currently, the South Coast Air Quality Management District and the San Joaquin Valley Air Pollution Control District are serious PM nonattainment areas.

V. Funding

This chapter presents the Advisory Board's recommendations on the amount of future funding for the Carl Moyer program, a brief discussion of the potential sources of funding evaluated, and recommendations for funding sources.

A. Recommended Funding Level for the Carl Moyer Program

The Advisory Board finds that the Carl Moyer Program is a vital and effective program that will significantly benefit air quality and public health. Funding for the program should be continued. A commitment for a multi-year program through 2010 is important for continuity and predictability to the local districts, users, and manufacturers of the equipment.

The Advisory Board finds that the appropriate amount to adequately fund the Carl Moyer Program (all components: the vehicle projects, advanced technology development, and infrastructure) is $100 million per year through 2010. This amount is based on the demonstrated demand and the need for NOx emission reductions to obtain national ambient air quality standards. As a NOx reduction program, which will continue to generate PM reductions, the Carl Moyer Program funded at the recommended level would produce about 60 to 80 tons/day in NOx emission reductions by 2005, statewide.

B. Sources of Funding Evaluated

The Advisory Board evaluated several sources of funding for the Carl Moyer Program. These sources include: the Petroleum Violation Escrow Account (PVEA Funds), Diesel Emission Reduction Funds (DERF), the Motor Vehicle Account (MVA), interest from the Oil Spill Prevention Fund, redirection of out-of-state diesel fuel sales tax, diesel penalties, the Federal CMAQ Fund, and the High Polluter Repair/Removal Account. In general, the restrictions imposed on these funds would not eliminate them as a potential source of funding for the Carl Moyer Program. However, the funds in these accounts are heavily earmarked for other programs.

1. Petroleum Violation Escrow Account (PVEA)

The PVEA receives revenues from negotiated settlements and judgements against U.S. oil companies from legal actions by the federal government to recover oil company overcharges during the period of price regulations-August 1973 to January 1981. The Department of Energy disburses PVEA funds to the states. The funds are required to be spent on projects that increase energy efficiency and/or reduce reliance on petroleum-based fuel. Because most of the penalties have already been paid, the availability of PVEA funds is declining sharply. New PVEA appropriations will likely be from accrued interest, which will eventually terminate.

2. Diesel Emission Reduction Fund (DERF)

The ARB collects these funds through the heavy-duty vehicle inspection program from fines on trucks that violate the smoke limits. The funds are provided to the CEC for use on on-road diesel-related projects. The CEC has received approximately $430,000 since June 1998. CEC staff is considering using these funds for solicitation of conventional low sulfur diesel and diesel exhaust aftertreatment demonstration projects.

3. Motor Vehicle Account (MVA)-State Agency Funding

This account derives the majority of its revenue from fees collected from vehicle registration, drivers' licenses, identification cards, and the sale of information. Except for the sale of information and identification card fees, all MVA revenues are restricted for use in transportation related purposes per Article XIX of the State Constitution. The MVA funds go to the DMV, the California Highway Patrol, and the ARB as follows:

DMV	$330 million plus $10 million for capital outlay
CHP	$844 million plus $7 million for capital outlay
ARB	$58 million plus $7.5 million for local air districts

4. Motor Vehicle Account (MVA)-District Funding (authorized by AB 2766 and other legislation)

State law authorizes county air pollution control districts that are designated by the ARB as nonattainment for a pollutant emitted by motor vehicles to levy a fee of between $1 and $4 on each registered vehicle. The fee is collected by the DMV and disbursed to the districts. Various districts statewide received a total of about $86 million from this fee. These funds are used to meet the match requirement under the Carl Moyer Program and other local air pollution mitigating activities. Without these funds, districts would not be able to participate in the Carl Moyer Program.

5. Interest from the Oil Spill Prevention Fund

These funds go to department of Fish and Game and there are restrictions on use. A total of $3 million remains in the fund account.

6. Diesel Off-Cycle Settlement Penalty Monies

These funds come from a settlement agreement with engine manufacturers regarding off-cycle emissions. These funds are intended to help mitigate off-cycle emissions. The state of California received a total of $19 million, $14 million of which have already been allocated to the Carl Moyer Program under the 1999/2000 fiscal year budget act. This leaves about $5 million in the account, half of which will be received in the 2000/2001 fiscal year, and the remainder in 2001/2002 fiscal year. This is an appropriate source of funding (albeit short-term) for the Carl Moyer Program.

7. High Polluter Repair or Removal Account

Funds from the High Polluter Repair or Removal Account are currently used to assist low-income families whose cars fail smog check to get their vehicles repaired, or for voluntary vehicle scrappage as part of the smog check program. Funding for the High Polluter Repair or Removal Account was generated from a $300 fee on California vehicle owners bringing in out-of-state vehicles. That fee has been invalidated as the result of a court decision, and therefore the High Polluter Repair or Removal Account is not a viable source of long-term funding for the Carl Moyer Program.

8. Diesel and Gasoline Sales Tax

There is currently a five percent state tax on both gasoline and diesel pump prices. California uses approximately 14.7 billion gallons of gasoline and 2.4 billion gallons of diesel a year. Since the tax is applied to the price of the fuel, the revenues vary according to the price, but is in the range of $850 million per year. These funds are primarily used for highway projects. An increase in the sales tax could be a source of funding for the Carl Moyer Program.

9. Diesel and Gasoline Sales Tax "Windfall" from Increased Fuel Prices

While the funds generated through the state sales tax on fuel are already heavily earmarked for other programs, the recent increase in fuel prices will result in an increase in the total revenues collected from the sales tax on gasoline and diesel fuel. A $0.05 increase in price of gasoline and diesel generates an additional $42.7 million a year in revenue.

10. General Fund Surplus

The Governors preliminary budget indicates a $3 billion dollar surplus. Given the current economic outlook for the year, the final budget will likely show a larger surplus. The budget surplus could fund a one-time appropriation to provide multi-year funding for the Carl Moyer Program.

11. Federal Money

Section 105 of the Clean Air Act: Section 105 grants are federal funds designated to assist state and local districts meet requirments imposed on them by the federal government. For the fiscal year 2000, the districts and ARB will receive $30 million in Section 105 grants allocated to the state of California.

The Federal CMAQ Fund: California receives about $150 million per year in CMAQ funds, which are available through local transportation commissions. Projects must relate to congestion mitigation and air quality improvement. CMAQ funds are controlled by local planning organizations whose first priority is transportation projects. Local

planning organizations should be encouraged to dedicate a larger portion of the funding to projects with substantive air quality benefits.

12. Request Federal Matching Funds

The state and the California Air Pollution Control Officers Association should actively seek matching federal funds of $100 million per year to further accelerate emission reduction achieved through the Carl Moyer program. Federal match funding would accelerate NOx reductions in areas with 2005 attainment deadlines. It would allow districts to also focus on both NOx and PM emissions reduction strategies in neighborhoods heavily impacted by traffic from heavy-duty vehicles.

C. Recommended Source of Funding

The Advisory Board recommends that the Carl Moyer Program be funded through 2010 at $100 million per year. The Advisory Board recommends that $80 million per year be allocated from the general fund and that the additional $20 million per year be provided from a combination of other funding sources. These funds would come from a combination of one-time and longer term funding sources.

The Advisory Board recommends a one-time appropriation of $400 million from the expected general fund surplus be made for use over the next five years (timing consistent with the 2005 attainment deadlines in Sacramento, San Joaquin, and Ventura). This one-time allocation would provide $80 million per year over five years (approximately equivalent to the demand for funding in the first year of the program). The Advisory Board recommends that the additional $20 million per year be provided from an increase in the motor vehicle registration fees (i.e., AB2766 and other funds) and the “windfall” of funds from the increase in sales tax revenue to the state associated with rising gasoline and diesel fuel prices. If motor vehicle registration fees are used, the Advisory Board recommends that legislative authority be granted to increase the motor vehicle registration fee monies and that only the incremental increase be used to help fund the Carl Moyer Program. Other funds discussed above could also provide some of the $20 million, although the potential for funding from these sources is more limited.